

To study the Clinical characteristics', Risk factors, long term Morbidity & Mortality of patients with Acute Coronary Syndrome (ACS) admitted in general medical wards (CRIMM - ACS study)

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Introduction

Coronary Heart Disease is major cause of morbidity and mortality among the cardiovascular diseases. Non-ST-Elevation Myocardial Infarction (NSTEMI), ST-Elevation Myocardial Infarction (STEMI) and Unstable Angina (UA) constitute Acute Coronary Syndrome (ACS). Many patients with NSTEMI are managed by general medicine, as they may not require immediate interventions. There is a paucity of data on the immediate and long-term morbidity and mortality among these cases of ACS admitted to general medical wards.

Methods

We conducted a prospective cohort study at the Christian Medical College and Hospital, a 2695 bedded University Teaching Institute in south India. The participants who had presented with ACS and admitted in general medical ward were included in the study. The Primary objective of the study was to assess the all-cause mortality at hospital discharge, one month and six months after ictus.

Results:

The mean age of our study participants was 63.5 ± 12.15 years. Fifty three percent were men. We had STEMI in 8 (5.7%) and 132 (94.3%) NSTEMI/UA. In-hospital ACS occurred 12.9% individuals. The mean duration of hospitalisation was 8.50 ± 5.35 days. Fifty three percent were from within 30kilometers of the hospital;26.4% were illiterate, while 63.3%, were in the lower/ upper lower socioeconomic category

The risk factors were Diabetes Mellitus (68.6%), Hypertension (67.1%), Smoking (27.9%), Ethanol consumption (19.3%), Physical inactivity (18.6%), while 31.4% had a prior ACS. 28.8% individuals were Pre-obese, 10.6% individuals were Obese.

Overall 16 % required Intensive care.

The most common presenting complaints were dyspnoea (94.2%), chest pain (45.7%), sweating (64.2%) and cough (26.4%). Half were in Killips class 3.

The mortality was 8.6%, 12.6% and 17.7% at discharge, one-month and six-month respectively. Reinfarction was 2.1%, 7.6% and 1.6% at discharge, one-month and six-month respectively. Cerebrovascular accident occurred in 1.7% at one month.

Logistic regression analysis of mortality at 1 month, showed that participants with well controlled diabetes had a trend towards better outcome (OR: .442, .147-1.329, $p=.146$) at one month compared to those with poor control. On assessing the socioeconomic status with the outcome, no difference was seen in mortality between

participants in different socioeconomic strata. Our mortality rates are similar to the Kerala ACS study, CREATE registry, EHS ACS 2 study.

Conclusion: There is a higher prevalence of NSTEMI as compared to STEMI admitted in general medical wards in our hospital. The clinical feature, risk factors, short and long-term outcomes are comparable to previously done studies worldwide.

Key words: ACS: Acute Coronary Syndrome, NSTEMI: Non- ST-Elevation Myocardial Infarction, STEMI: ST-Elevation Myocardial Infarction